

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (New) A recording medium comprising:
a substrate; and
a protective film formed over the substrate,
wherein the protective film comprises diamond-like carbon,
wherein the protective film comprises hydrogen at a concentration of 10 to 60 atomic%,
wherein the protective film comprises a first element selected from the group consisting of silicon, germanium, tin and lead at a concentration of 20 atomic% or less,
wherein the protective film comprises a second element selected from Group III and Group V elements.
3. (New) A recording medium according to claim 2, wherein Vicker's hardness of the protective film is 2000kg/mm² or more.
4. (New) A recording medium according to claim 2, wherein the protective film has carbon bonds attributed to sp³ hybrid orbital.
5. (New) A recording medium according to claim 2, wherein a thickness of the protective film is 500Å or less.

6. (New) A recording medium according to claim 2, wherein a thickness of the protective film is 200Å or less.

7. (New) A recording medium comprising:
a substrate; and
a protective film formed over the substrate,
wherein the protective film comprises diamond-like carbon,
wherein the protective film comprises hydrogen at a concentration of 10 to 60 atomic%,

wherein the protective film comprises a first element selected from the group consisting of silicon, germanium, tin and lead at a concentration of 20 atomic% or less,

wherein the protective film comprises a second element selected from Group III and Group V elements,

wherein a concentration of the first element at a first portion of the protective film is higher than a concentration of the element at a second portion of the protective film.

8. (New) A recording medium according to claim 7, wherein Vicker's hardness of the protective film is 2000kg/mm² or more.

9. (New) A recording medium according to claim 7, wherein the protective film has carbon bonds attributed to sp³ hybrid orbital.

10. (New) A recording medium according to claim 7, wherein a thickness of the protective film is 500Å or less.

11. (New) A recording medium according to claim 7, wherein a thickness of the protective film is 200Å or less.

12. (New) A recording medium comprising:
a substrate; and
a protective film formed over the substrate,
wherein the protective film comprises diamond-like carbon,
wherein the protective film comprises hydrogen at a concentration of 10 to 60 atomic%,

wherein the protective film comprises a first element selected from the group consisting of silicon, germanium, tin and lead at a concentration of 20 atomic% or less,
wherein the protective film comprises a second element selected from Group III and Group V elements,
wherein a centerline average roughness of the protective film is 30nm or less.

13. (New) A recording medium according to claim 12, wherein Vicker's hardness of the protective film is 2000kg/mm² or more.

14. (New) A recording medium according to claim 12, wherein the protective film has carbon bonds attributed to sp³ hybrid orbital.

15. (New) A recording medium according to claim 12, wherein a thickness of the protective film is 500Å or less.

16. (New) A recording medium according to claim 12, wherein a thickness of the protective film is 200Å or less.

17. (New) A recording medium comprising:
a substrate; and
a protective film formed over the substrate,
wherein the protective film comprises diamond-like carbon,

wherein the protective film comprises hydrogen at a concentration of 10 to 60 atomic%,

wherein the protective film comprises a first element selected from the group consisting of silicon, germanium, tin and lead at a concentration of 20 atomic% or less,

wherein the protective film comprises a second element selected from Group III and Group V elements,

wherein a concentration of the first element at a first portion of the protective film is higher than a concentration of the element at a second portion of the protective film,

wherein the first portion is closer to the substrate than the second portion.

18. (New) A recording medium according to claim 17, wherein Vicker's hardness of the protective film is 2000kg/mm² or more.

19. (New) A recording medium according to claim 17, wherein the protective film has carbon bonds attributed to sp³ hybrid orbital.

20. (New) A recording medium according to claim 17, wherein a thickness of the protective film is 500Å or less.

21. (New) A recording medium according to claim 17, wherein a thickness of the protective film is 200Å or less.